

### **REMARKS**

Claims 1-6, 10-16, 18-24, 26-29, 32 and 33 are now pending in the application. Claims 7, 17, 25, 30 and 31 have been withdrawn from consideration. Claims 8 and 9 have been cancelled. Claims 1-6, 8-16, 18-24 and 26-29 stand rejected. Claims 1, 6 and 21 have been amended, and Claims 32 and 33 are new. Bases for the amendments and the new claims can be found throughout the application, drawings and claims as originally filed and, as such, no new matter has been presented. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

### **REJECTION UNDER 35 U.S.C. § 112**

Claims 1-6 and 8-10 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicants regard as the invention. Applicants have amended claims 1 and 6 to more particularly point out Applicants' claimed subject matter. Claim 1 has been amended according to the Examiner's suggestions. Claim 6 has been amended to correct the informality. Applicants submit no new matter has been added via these amendments. Thus, reconsideration and withdrawal of this rejection is respectfully requested.

### **REJECTION UNDER 35 U.S.C. § 102**

Claims 1-5, 10-16, 18, 19-21, 23, 24 and 26-29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Damon et al. (G.B. Pat. No. 2323056 A; hereinafter "Damon"). This rejection is respectfully traversed.

Initially, Applicants note Damon appears to disclose a composite panel 12 that is molded in a vacuum press under heat and pressure with a plurality of pins 13. The pins 13 are removed to form openings in the composite panel 12 and then the composite panel 12 is bonded to a honeycomb core cell component to complete an engine nacelle skin structure. The purpose of Damon's disclosure is to provide an engine nacelle skin structure with engine noise reduction, as the noise from the engine flows into the openings and enters the cells of the honeycomb core structure, which acts as an anechoic chamber to redirect the noise back to the engine resulting in bidirectional flow. In contrast, Applicants independent Claim 1 has been amended to recite:

destroying the member in the laminated structure to form a plurality of pores in the laminated structure said destroying of the member being accomplished with at least one of substantially little oxidation and degradation to the laminated materials;  
disposing the porous laminated structure adjacent to said structure; and  
cooling said structure via said porous laminated structure.

In view of the above discussion, Applicants respectfully assert each of the elements as claimed are not taught or suggested whatsoever by Damon.

Specifically, Damon does not teach or suggest whatsoever a porous laminated structure for cooling an adjacent structure as claimed. Rather, Damon teaches a porous composite for channeling noise to an anechoic chamber. Applicants note it is improper to modify the composite panel 12 of Damon for cooling a structure, as Damon teaches the purpose of his invention is to channel noise to an anechoic chamber. Anticipation, however, may reside even if the prior art reference relied on does not expressly disclose a minor aspect of the claimed invention. Under the principles of

inherency, if a structure in the prior art necessarily functions in accordance with the limitations of a process or method claim of an application, the claim is anticipated. *In re King*, 801 F.2d 1324, 231 USPQ 136, 138 (Fed. Cir. 1986). The Federal Circuit has stated:

To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference and that it would be so recognized by persons of ordinary skill. *Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 20 USPQ 2d 1746, 1749 (Fed. Cir. 1991).

In this regard, the CCPA has added that “[i]nherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.” *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (C.C.P.A. 1981) (quoting *Hansgirk v. Kemmer*, 102 F.2d 212, 214, 40 USPQ 665, 667 (C.C.P.A. 1939) (emphasis in original)).

Applicants submit that the Damon reference is silent about the asserted inherent characteristic of being able to cool a structure, and, moreover, that the Office has not presented any extrinsic evidence that would make clear that the missing description matter is necessarily present in the Damon reference, and that it would be so recognized by persons of ordinary skill in the art.

In view of the above discussion, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of Claim 1 under 35 U.S.C. § 102(b).

With regard to independent Claim 11, independent Claim 11 recites:

selecting a substantially oxide-free fabric;  
forming a fabric stack including at least one layer of  
said selected substantially oxide-free fabric to be laminated  
into a substantially coherent laminate structure;

In addition, independent Claim 21 recites:

selecting a plurality of substantially non-oxide fabrics layers;  
forming a fabric stack by disposing said selected plurality of substantially non-oxide fabric layers adjacent one another;

Applicants respectfully assert that these features as claimed are not taught or suggested whatsoever by Damon.

Damon does not teach or suggest whatsoever the use of an oxide-free material or the formation of pores in an oxide-free material. Damon discloses the use of a fiber reinforced plastic material, and does not disclose whatsoever the use of an oxide-free material as claimed. Applicants submit that the Damon reference is silent about the asserted inherent characteristic of being formed of an oxide-free material, and, moreover, that the Office has not presented any extrinsic evidence that would make clear that the missing description matter is necessarily present in the Damon reference, and that it would be so recognized by persons of ordinary skill in the art. Applicants therefore submit that the rejection of Claims 11 and 21 under 35 U.S.C. § 102(b) is improperly based upon probabilities and possibilities and, as such, respectfully request reconsideration and withdrawal of this rejection.

Regarding independent Claim 26, Claim 26 recites:

abolishing the pore-forming members in the laminated structure to form a plurality of unidirectional pores in said laminated structure.

Applicants respectfully assert that these features as claimed are not taught or suggested whatsoever by Damon.

Applicants submit that the Office has not presented any extrinsic evidence that would make clear that forming unidirectional pores is necessarily present in the Damon

reference, and that it would be so recognized by persons of ordinary skill in the art. Furthermore, Damon teaches away from the formation of unidirectional pores, and pores enabling unidirectional flow, as the object of the Damon disclosure is to provide pores that “reverse the [engine] noise back to the engine.” Thus, Damon teaches the formation of bidirectional pores or pores that enable bidirectional flow. Applicants therefore submit that the rejection of Claims 11 and 21 under 35 U.S.C. § 102(b) is improperly based upon probabilities and possibilities and, further, as Damon teaches away from the formation of unidirectional pores, Applicants respectfully request reconsideration and withdrawal of this rejection.

With regard to Claims 2-5, 10, 12-16, 18, 19, 20, 23, 24 and 27-29, Applicants notes that Claims 2-5, 10, 12-16, 18, 19, 20, 23, 24 and 27-29 depend directly or indirectly from Claims 1, 11, 21 and 26 and thus should be in condition for allowance for the reasons set forth for Claims 1, 11, 21 and 26, above. In addition, Applicants submit that Claims 19 and 20 have independently allowable subject matter as Damon does not teach or suggest whatsoever forming unidirectional pores or providing pores with selected profiles to enable unidirectional pore formation, as discussed above. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of Claims 2-5, 10, 12-16, 18, 19, 20, 23, 24 and 27-29 under 35 U.S.C. §102(b).

#### **REJECTION UNDER 35 U.S.C. § 103**

Claims 6, 8, 9 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Damon. This rejection is respectfully traversed.

Applicants respectfully refer the Office to the remarks regarding Damon above. With regard to Claims 8 and 9, as Claims 8 and 9 have been cancelled, the rejection to these claims has been rendered moot. Regarding Claims 6 and 22, Applicants note these claims depend directly from Claims 1 and 21, respectively, and thus should be in condition for allowance for the reasons set forth for Claims 1 and 21, above. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of Claims 6 and 22 under 35 U.S.C. §103(a).

#### **NEW CLAIMS**

Applicants have added new Claims 32 and 33 to further define Applicants' teachings. Support for these new claims can be found in Applicants' specification as filed and, as such, these new claims do not constitute new matter.

With regard to new claims 32 and 33, Applicants note that these claims depend directly from independent Claim 1 and, thus, should be in condition for allowance for the reasons set forth for Claim 1 above. In addition, Applicants note Damon does not disclose whatsoever transpirationally cooling a structure or flowing a coolant through a structure to cool a hot wall of said structure as recited in Applicants' claims. In addition, Applicants note modifying the structure of Damon to include the features of Applicants' claims would impermissibly modify the purpose of Damon's disclosure. Accordingly, Applicants respectfully submit new Claims 32 and 33 are in condition for allowance for at least these reasons.


#### **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests

that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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